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The last Office Action has been carefully considered.

It is noted that claims 1, 3 and 12 are rejected under 35 U.S.C. 103(a) over the patent to Fisher in view of the patent to Miura.

Claims 1-3 and 12 are rejected under 35 U.S.C. 103(a) over the patent to Huang in view of the patent to Miura.

The drawings, the abstract of the disclosure and the claims are objected to and also the claims are objected under 35 U.S.C. 112.

At the same time the Examiner indicated that claims 4-9 and 11 are generally allowable.

In connection with the Examiner's formal objections and rejections, applicants have amended the specification and the claims and provided a new abstract of the disclosure. It is believed that the grounds for the formal objections and rejections are therefore eliminated.

The Examiner's indication of the allowability of some claims has been gratefully acknowledged. In connection with this indication, claims 4, 5, 8, 9 and 11 have been amended by introducing into them the features of claim 1 thus making them independent. These claims together with claims 6 and 7 are now in allowable condition.

After carefully considering the Examiner's grounds for the rejection of the claims over the art, claim 1, the broadest claim on file, has been amended. The support for the changes for claim 1 can be found on page 13, starting from line 30.

It is respectfully submitted that the new features of the present invention which are now defined in claim 1 and other claims are not disclosed in the references and can not be derived from them as a matter of obviousness.

Turning now to the Examiner's grounds for the rejection of the claims, it is respectfully submitted that in paragraph 9 of the Office Action up to line 8, the Examiner makes reference to the embodiments of Figure 17, Figure 6 and the description starting from column 6, line 63 to column 8, line

37 of seven embodiments, see also column 4 "Brief Description of the Drawings", of the patent to Fisher.

First the Examiner analyzes the embodiment of Figures 16 and 17 which is shortly described in column 8, lines 21-37. From the description and the associated figures of the drawings, it can be seen that first individual stator bars 240 are arranged linearly successively after one another. The successively arranged stator bars 240 are received in a receptacle 246 (potting). As described from line 31, copper electrical conductors 238 are wound around the stator bars 240 to form the stator inductor 236. Correspondingly from this embodiment in accordance with Figures 16 and 17, a method can be derived, for producing a magnetically excitable core (stator bars 240 arranged linearly), which has a core winding (copper electrical conductors 238) for an electrical machine (linear motor).

In a method step S1 a core (stator bars 140) is produced having a substantially parallelepiped shape (Figure 17) with slots extending parallel on one side. In a method step S2 the core winding (copper electrical conductors 232) is inserted into the slots with its winding sides. From the embodiment in accordance with Figures 16 and 17 is however not known, in a method step to reshape the core 240 together with the core winding 238

into a cylindrical shape with radially oriented slots. Furthermore, from this embodiment it is not known to press and reshape all winding sides each inserted into a slot, before the insertion into the slot, in the patent to Fischer.

It is therefore believed that the subject matter defined now in claim 1 is new when compared with the embodiment of Figures 16 and Figure 17 and the associated description.

With respect to the embodiment of Figures 16 and Figures 17, it should be also mentioned that in accordance with the description it must be linear motor which can be used for example in typewriters or looms. The object shown in Figures 16 and Figures 17 does not make obvious from the description to be provided for a subsequent reshaping into a stator having a cylindrical shape. Since from this embodiment it is not clear how the stator bars 240 must be assembled after the round bending, it is completely wrong to transfer it to this embodiment. Furthermore, it appears that the stator bars 240 are fixed in the "potting 246", so that in applicant's opinion a round bending for this component from the stator bars 240 and the "potting" is not in question.

In the Office Action, in particular in paragraph 9 starting from line 5, "Inserting..."the Examiner makes reference to another embodiment in the patent to Fischer, namely the embodiment shown in Figures 6 and 7, as described starting from column 6, lines 63 to column 7, line 7. From this embodiment not many features related to this stator with the stator bars 40 can be taken. From Figure 6 in connection with the associated Figure 10 it can be derived that here a method for producing a magnetically excitable core (with the stator bars 40) is provided, wherein the magnetically excitable core has a core winding (electrical conductors 38). In accordance with Figure 10, it is also clear that at a certain time point of the manufacturing process a process step is provided, during which in the not shown slot the core winding 38 is inserted with its winding sides.

Further features are however not derivable from this embodiment with respect to claim 1. The electrical machine shown in Figure 6 obviously has a core (stator bars 40) which has substantially a ring shape. Since the description does not provide further features related to the manufacturing process, therefore in connection with Figures 6, 7 and 10 first a stator core is to be produced from the stator bars 40 which first has the above mentioned ring shape. At this point the stator core has no winding. Correspondingly, also no method step can be provided, during which the

stator core together with the stator winding 38 is reshaped in a cylindrical ring shape with radially inwardly oriented slots. Furthermore, as the Examiner admitted, a person skilled in the art can not derive from the patent to Fischer that all winding sides 38 which are inserted each in a corresponding slot, before the insertion into the slot are pressed into a slot, shape and plastically reshaped.

It is believed that the above mentioned new features of the present invention are not disclosed in the patent to Fischer.

Turning now to the patent to Miura, it can be seen that as described from column 3, starting from line 54 the stator 100 disclosed there is composed of a stator core 10 which in turn is composed of a plurality of stacked metal plates having slots 10a and teeth 10b over the periphery in alternating order. The slots 10a and the teeth 10b are arranged along the inner periphery. In accordance with the showing in Figure 3, it is clear that in the stator core 10 both first winding parts 16 and also second winding parts 18 are inserted. As can be seen from Figure 2, the first winding part 16 has a trapezoidal cross-section, see column 4, starting from line 45, and the second winding part 18 has a parallelogram-shaped cross-section. The patent to Miura thereby discloses a method for producing a magnetically

excitable core 10, which has a core winding 16, 18 for an electrical machine. Figure 3 shows that in a method step the core winding 16, 18 is inserted with its winding sides (Figure 3) in the slot of the stator core 10.

The patent to Miura however does not disclose where in a method step a core having a substantially parallelepiped shape is produced, which has parallel slots at one side. Moreover, it is disclosed that the core 10 already has a ring-shape which is not changeable. Thereby there is no method step in which the core 10 together with the core winding 16, 18 is plastically reshaped into a cylindrical ring shape with radially inwardly oriented slots.

The windings disclosed in the patent to Miura, in the applicant's opinion, are not reshaped. Instead the parts of the windings are displaced or offset or reoriented, but not plastically reshaped in the sense of the applicant's invention. Thus, this reference also does not teach the new features of the present invention.

Finally, turning now to the patent to Huang, it can be seen that this patent discloses a method of producing a magnetically excitable core (mono segment 32, column 3, starting from line 38, Figure 4b) with a core

winding (gauge wire 37, Figure 6) for an electrical machine. In a method step the core 32 has substantially a parallelepiped shape with slots (Figure 4b) which at one side extend parallel, wherein in these slots in a further method step the core winding 37 is inserted with its winding sides, and then in a further method step the core 32 together with the core winding 37 is reshaped into a cylindrical ring shape wherein the slots are oriented radially inwardly as shown in Figure 10. The patent to Huang however does not disclose that all winding sides are inserted each in a respective one of the slots, before the insertion in the slot in a tool to press into a slot shape and to plastically reshape.

This reference also does not teach the new features of the present invention.

It is believed to be clear that none of the references applied by the Examiner, neither the patent to Fischer, nor the patent to Miura nor the patent to Huang teaches the new features of the present invention as defined in claim 1. Therefore any combination of the references would lead only to such a method which would not include the features of the present invention as defined in the amended claim 1.

As for the obviousness rejection applied by the Examiner, it is respectfully submitted that the references also do not make obvious the present invention because they do not contain any hint or suggestion for the new features of the present invention.

In order to arrive at the applicant's invention from the teachings of the references as a matter of obviousness, the solutions proposed in the references have to be fundamentally modified. In particular, the methods disclosed in the references have to be modified by including into them the features which were first proposed by the applicant. However, it is known that in order to arrive at a claimed invention, by modifying the references the cited art must itself contain a suggestion for such a modification.

This principle has been consistently upheld by the U.S. Court of Customs and Patent Appeals which, for example, held in its decision in re Randol and Redford (165 USPQ 586) that

Prior patents are references only for what they clearly disclose or suggest; it is not a proper use of a patent as a reference to modify its structure to one which prior art references do not suggest.

Definitely, the references do not contain any hint or suggestion for such modifications.

In view of the above presented remarks and amendments, it is respectfully submitted that claim 1, the broadest claim on file, should be considered as patentably distinguishing over the art and should be allowed.


As for the dependent claims, these claims depend on claim 1, they share its presumably allowable features, and therefore it is respectfully submitted that they should be allowed as well.

Reconsideration and allowance of the present application is most respectfully requested.

Should the Examiner require or consider it advisable that the specification, claims and/or drawings be further amended or corrected in formal respects in order to place this case in condition for final allowance, then it is respectfully requested that such amendments or corrections be carried out by Examiner's Amendment, and the case be passed to issue. Alternatively, should the Examiner feel that a personal discussion might be

helpful in advancing this case to allowance, he is invited to telephone the undersigned (at 631-549-4700).

Respectfully submitted,



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